

## ***ARLINGTON PUBLIC SCHOOLS***

*In accordance with the provisions of the Massachusetts General laws, Chapter 30A, Section 20, notice is hereby given for the following meeting of the:*

***Arlington School Committee  
Curriculum Instruction Accountability and Assessment  
Wednesday, December 18, 2024  
3:30 PM***

***In person:***

*Arlington Public Schools District Office  
14 Mill Brook Drive  
2nd Floor, School Committee Room  
Arlington, MA 02476*

***Via Zoom:***

*<https://us02web.zoom.us/j/89762700457>*

*Open Meeting*

*Math Pathways*

- *12\_18 CIAA Math Pathways Presentation*

*Plan for reviewing AHS Program of Studies*

*Approval of Minutes*

- *DRAFT Meeting Minutes - June 14, 2024*
- *DRAFT Meeting Minutes - November 4, 2024*

*Old Business*

*New Business*

*Adjournment*

*The listings of matters are those reasonably anticipated by the Chair, which may be discussed at the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law.*

*Stated times and time amounts, listed in parenthesis, are the estimated amount of time for that particular agenda item. Actual times may be shorter or longer depending on the time needed to fully explore the topic.*

*Submitted by Jane Morgan*

Massachusetts law requires all open session meetings of public bodies to be accessible to members of

the public, including those with disabilities. If you need reasonable accommodations in order to participate in the meeting, contact the Administrative Assistant to the Arlington School Committee Liz Diggins at [ediggins@arlington.k12.ma.us](mailto:ediggins@arlington.k12.ma.us).



## **Town of Arlington, Massachusetts**

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### **Meeting Location - Hybrid**

#### **Summary:**

#### **In person:**

Arlington Public Schools District Office  
14 Mill Brook Drive  
2nd Floor, School Committee Room  
Arlington, MA 02476

#### **Via Zoom:**

<https://us02web.zoom.us/j/89762700457>



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## Town of Arlington, Massachusetts

**Open Meeting**



## **Town of Arlington, Massachusetts**

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### **Math Pathways**

#### **Summary:**

- 12\_18 CIAA Math Pathways Presentation

#### **ATTACHMENTS:**

Type	File Name	Description
▢ Presentation	12_18_CIAA_Math_Presentation_.pptx(1).pdf	12_18 CIAA Math Presentation .pptx

# **Math in APS**

## **CIAA Subcommittee Presentation**



**Octavia Brauner, *Director of Mathematics & Computer Science***  
**December 18, 2024**

# Agenda

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- Updates since November
- Update on High School Pathways
- Mission and Goals
- Naming our Challenges
- Values, Goals, and Commitments
- Current Structure in Middle School Math
- The End at the Beginning: 2025-26 Math at Gibbs
- The Future: Beyond 2025-26
  - Possibilities for Adjusting Middle School Math Pathways
  - Pacing Options for Adjusting Middle School Pathways
- Next Steps
- Discussion

# Updates Since November

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## **DESE Advanced Learning Pilot Program - not participating**

- Focus is on individual teacher practice (not whole-team / systems-level transformation).
- First day assessment did not meet contextual needs of our district.

## **Embedded Professional Development for All APS MS Teachers, Alternative Plans:**

### ■ At Gibbs:

- Supporting strengthening teacher skill with UDL instructional practices
- Department time:
  - Scope & Sequence standards aligned
  - Grade-level assignments & High expectations
  - Opportunities for deeper learning and extension

### ■ At OMS:

- Instructional routines for engagement
- Vertical alignment Math 7-Algebra 1



# High School Pathways Update

- Developed application for external coursework to access to advanced coursework at AHS: Calculus and Physics C
  - Summer Precalculus Course work
  - Summer Calculus skills work
  - Calculus Skills Prereq Assessment & Rubric (AP Physics C)
- Double up in Geometry and Algebra 2

Options	9th Grade	10th Grade	11th Grade	12th grade
Double up in 10th	Algebra 1	Geometry & Algebra 2	Precalculus	Calculus
Summer Precalculus (11/12)	Algebra 1	Geometry	Algebra 2	Calculus
Double up & Summer Precalculus	Algebra 1	Geometry & Algebra 2	Calculus	
Double up in 9th	Geometry & Algebra 2	Precalculus	Calculus	
Summer Precalculus (10/11)	Geometry	Algebra 2	Calculus	

These options will be available for next school year and we will share the application and messaging in our next update, and with families in January-February 2025.

# Mission and Goals:

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**APS Mission Statement:** The Arlington Public Schools focuses on the whole child to create inclusive and innovative learning opportunities for all students, values diverse identities and ways of learning, prepares all staff to maintain high expectations while providing necessary supports, and sustains collaborative partnerships with families and the community.

## Math Department Goals:

- Cultivate a deep understanding of math concepts, not just procedural skills.
- Foster intellectual curiosity and encourage critical thinking and creative problem-solving.
- Ensure all students have access to high-quality math education through strong Tier 1 instruction.
- Promote a growth mindset where challenges are seen as opportunities to learn, not barriers.
- Encourage collaboration among students, where they work together, share ideas, and support one another.

# When it comes to leveling and rigorous instruction...

## We Value the Following for All Students:

- Productive struggle (growth)
- Rich feedback from trusted peers and teachers (belonging)
- Engaging real-world tasks and applications (joy)
- Student choice (empowerment)

## Commitments:

- **Challenge-by-choice:** students should have the ability to move fluidly into more or less rigorous coursework based on their needs.
- **Informed agency:** when making important decisions about coursework, parents and students should have information about their student as a learner in that content area that is both contextual and objective.
- **Strong foundational knowledge:** some content and concepts are absolutely foundational to later learning; if they are not fluid, automatic, and deeply understood, the student will struggle in later coursework. This is true of literacy, sciences, and mathematics, and APS is ethically bound to providing a strong educational foundation for all students.
- **Flexible interventions:** all students should be able to receive support or challenge when they need it, from experts qualified to provide it. *All students require support and are ready to accelerate in their learning in some subject areas at some point in their academic careers, and our structures should be designed to facilitate and provide those supports as immediately and thoroughly as possible.*



# Naming Our Challenges [with (math) instruction]

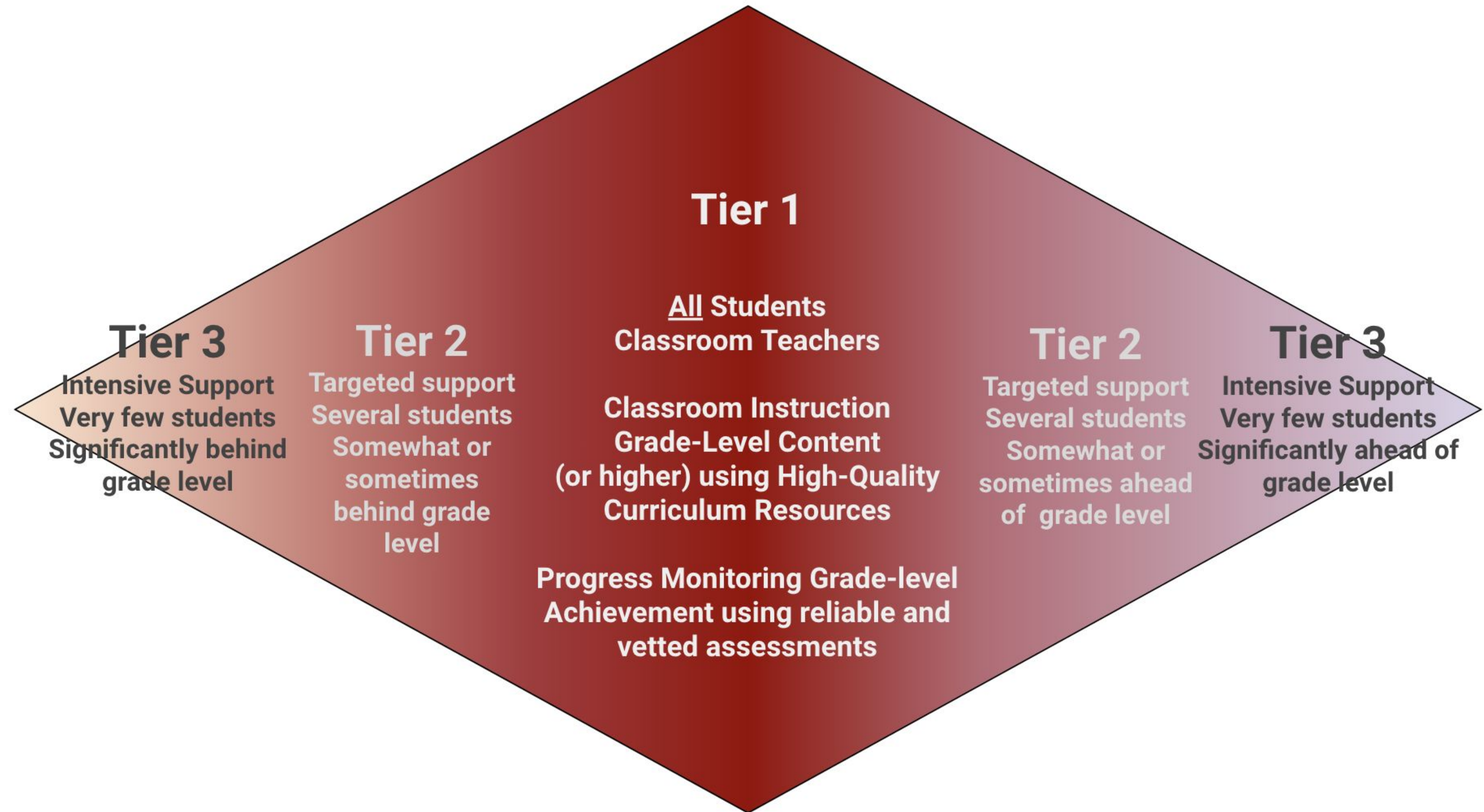
- **Access to Intervention and Extension:** We do not have systems that consistently support all students in accessing flexible access to appropriate grade-level supports and/or advanced or accelerated coursework in disciplines of deep interest;
- **Student Experience:** We are not always providing all students with engaging and challenging content that builds new knowledge at while simultaneously supporting the development of foundational content;
- **Valid, reliable, and contextualized assessments:** we lack a systematic approach to assessment across content areas that values feedback and takes into account multiple measures and indicators of student mastery of content;
- **Mindsets about grading:** Grades are gold. students and families are very focused on grade-monitoring and whether something “counts;” *learning is extrinsically motivated.*
- **Mindsets about student ability, content, and focal groups:** We are doing this work for all students:
  - *Students in focal groups are not getting access to grade level or beyond learning. They are not getting access because they are in the focal group, not necessarily because they are not able to access the content.*
  - The “Catch 22” of the Achievement Gap and Strategic Plan Focal Groups



# Multi-Tiered Systems of Support: Diamond Model

## We Value the Following for All Students:

- Productive struggle (growth)
- Rich feedback from trusted peers and teachers (belonging)
- Engaging real-world tasks and applications (joy)
- Student choice (empowerment)

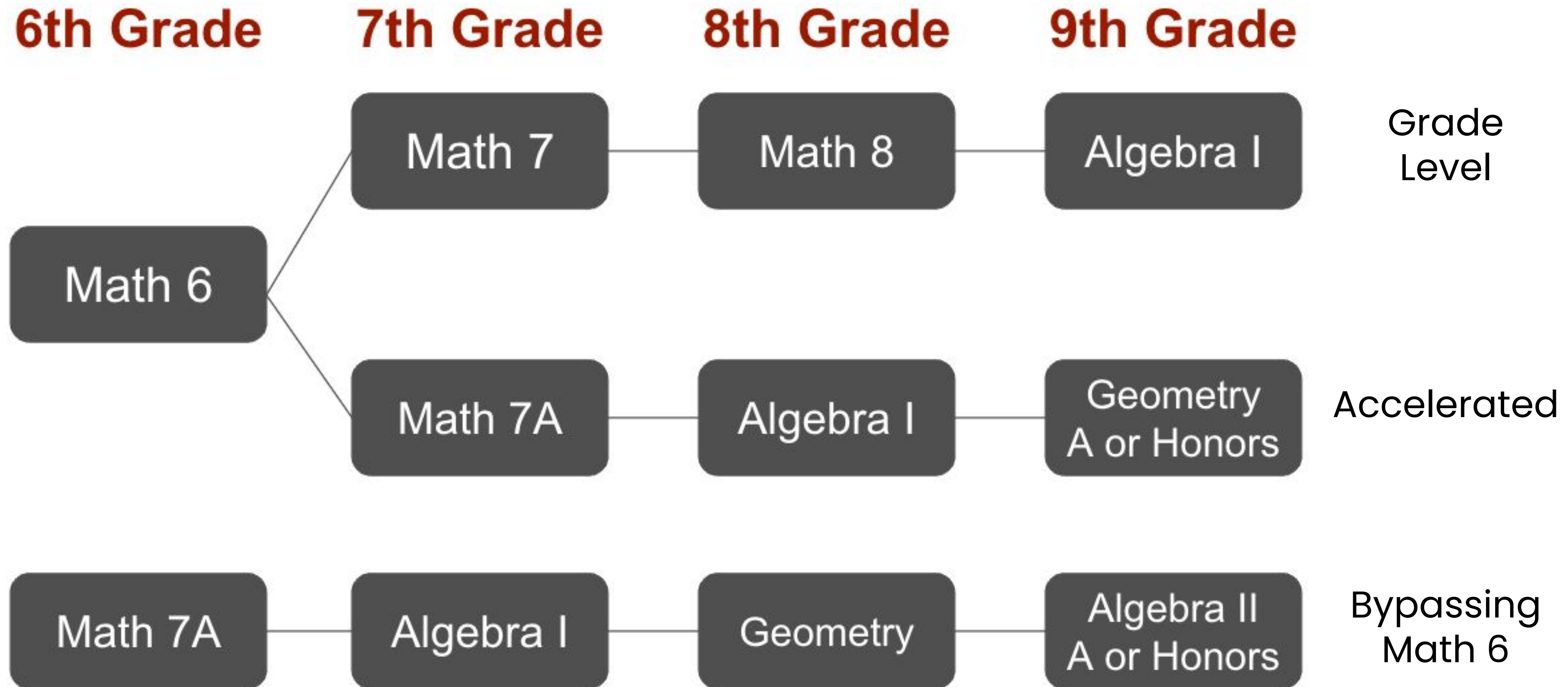


Most students will require support beyond the classroom along this continuum in *some* subject area at *some* point in time. The center serves all students, and all students should have as much access to High-Quality Tier 1 instruction as often as possible. As students need more intensive support, they may require additional (not replacement) support in alternative settings.





# Current Structure in Middle School Math



# Beginning at the End: The Plan for 2025-2026

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- 2025-26 will be the *last* year of the Bypassing Program.
- APS will spend the 2025-26 school year planning for an approach that is aligned with our values and commitments.
- In 2026-27, we will start a new middle school pathway to continue offering students the opportunities to take advanced coursework at AHS.
- We will develop options that will allow all students to paths that allow for access rigorous coursework at AHS for all students, in accordance with our values and commitments, while ensuring all students are set up for success in the pathways they choose.\*
- We will spend the 2025-26 school year planning and piloting some of the actions that follow in this presentation, and preparing educators to meet student needs both within the classroom and in intervention.

*\*This does not mean that all students will be able to take all coursework at any time. Prerequisite knowledge is often required to ensure foundational knowledge and a successful experience in a course. APS will work towards flexibility while building multiple routes through which students can access courses in subject areas of interest to them, while advocating for system that encourage students to engage in extracurricular activities, access high-interest electives, and generally become well-rounded and well-prepared for whatever follows their time in APS.*



# Possibilities for Adjusting Middle School Math Pathways

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- WIN Flex Scheduling for All Students
- Math 6A and/or 7A Leveling (separate or same class)
- 8th grade doubling up
  - Algebra 1 in school
  - Geometry after school

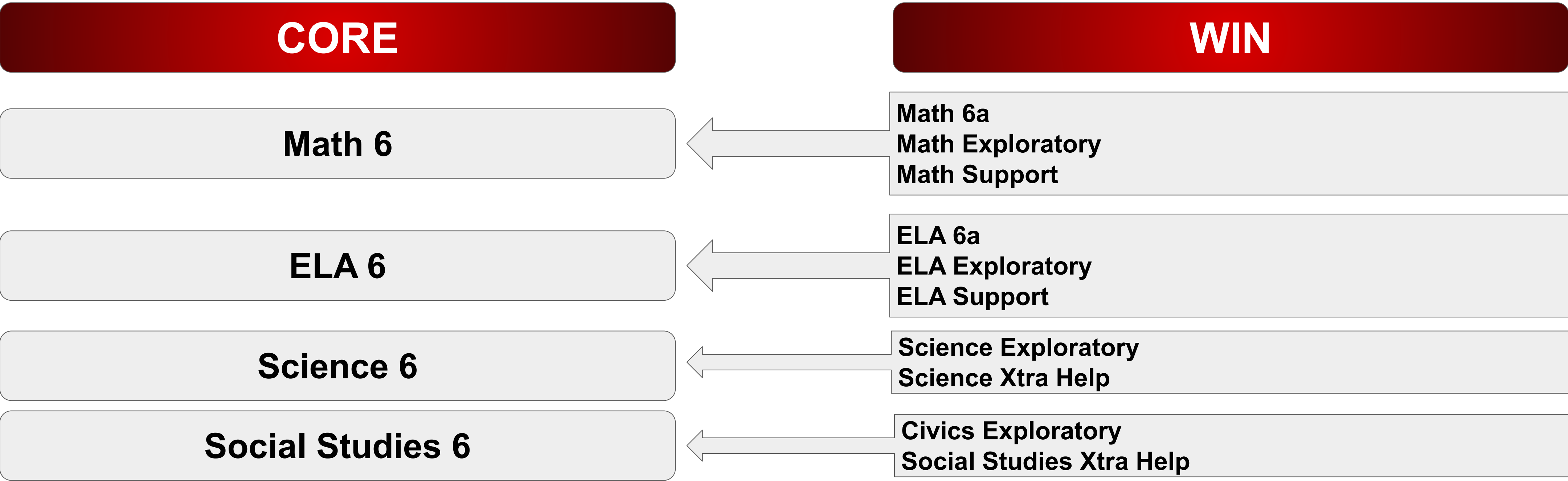
***20 school days have passed since we last discussed this with the School Committee. These ideas are new, underdeveloped, and subject to significant revision as we move forward.***

***We are not advocating for any of these options (at least not yet), and these options are not exhaustive. They are built from what we are already doing in other spaces, what we know other districts in our area have tried. They could be combined or implemented separately.***



# WIN Flex Scheduling and Tiered Support for All

This option would work best if all students had a WIN block and if we found a solution for flexible scheduling. In this model, students would either be in intervention, academic support, extension, or choice- and interest-based classes during this time. Students would be ability-grouped during the WIN time, but this does not negate the need for universally-designed Tier I instruction aligned with grade-level standards.



# WIN Flex Scheduling and Tiered Support for All



This option would work best if all students had a WIN block and if we found a solution for flexible scheduling. In this model, students would either be in intervention, academic support, extension, or choice- and interest-based classes during this time. Students would be ability-grouped during the WIN time, but this does not negate the need for universally-designed Tier I instruction aligned with grade-level standards.

Changes Required	Considerations
● Provide access to WIN for every student	● Schedule changes
● Adjustments to Advisory	● Bargaining Implications
● Additional Staffing	● Financial Implications
● Differentiated Tier I instruction	● Professional Development required for Tier I as well as new WIN model
● Addition of assessment methods to inform placement in flexible WIN blocks	● Approaches to providing intervention in multiple areas - both exploratory and supportive
● Implementation of flex scheduling application to assign WIN blocks	● If rolled up to OMS, possibility to allow for later acceleration through similar model
Lots of other things we haven't thought of yet...	

# Math 6A Leveled Coursework

This option would include one or multiple sections of Math 6A in each Gibbs LC.

- Offers the opportunity for acceleration to be opt-in
- Introduces new challenges for scheduling and the potential for cohorting across content areas.

Changes Required	Considerations
● Scope and Sequence	● Schedule changes
● All 6th grade math teachers teach both Math 6 and Math 6A (similar to current model in 7th grade)	● Maintains leveling (and all of its challenges, benefits, and equity considerations)
● Additional Staffing (Interventionists, Special Educators, and/or Coach)	● Professional Development
● Assessments and surveys to inform student and family choices about math pathways	● Allows for choice: Math 6 vs Math 6A
	● Approaches to providing intervention in multiple areas - both exploratory and supportive
Lots of other things we haven't thought of yet...	



# Math 6A Leveled Coursework

Alternatively, Math 6A content could be built into a highly differentiated class for all 6th grade students (similar to heterogeneously-grouped 9th grade ELA)

Changes Required	Considerations
<ul style="list-style-type: none"><li>● Adjusted and elevated Curriculum and Scope and Sequence</li></ul>	<ul style="list-style-type: none"><li>● Schedule changes</li></ul>
<ul style="list-style-type: none"><li>● Tasks and Assessments are differentiated</li></ul>	<ul style="list-style-type: none"><li>● Financial Implications</li></ul>
<ul style="list-style-type: none"><li>● Additional Staffing (Interventionists, Special Educators, and/or Coach)</li></ul>	<ul style="list-style-type: none"><li>● Professional Development for differentiated instruction</li></ul>
<ul style="list-style-type: none"><li>● Differentiated Tier I instruction</li></ul>	
Lots of other things we haven't thought of yet...	

# Additional Coursework Outside the School Day (8th grade double-up)

Alternatively, at some point in middle school, we could offer after-school classes in mathematics to qualify students for acceleration along the pathway. This has the benefit of not introducing constraints on core programming by extending the school day for students who opt in; however, it has significant implications for learning foundational content if not executed well.

Changes Required	Considerations
<ul style="list-style-type: none"><li>● Development and addition of after-school coursework</li></ul>	<ul style="list-style-type: none"><li>● Schedule changes</li></ul>
<ul style="list-style-type: none"><li>● Providing for accessibility of this option for all students: accommodations, transportation, other extracurriculars, etc.</li></ul>	<ul style="list-style-type: none"><li>● Financial implications of making the course accessible</li></ul>
<ul style="list-style-type: none"><li>● Additional Staffing for the course</li></ul>	<ul style="list-style-type: none"><li>● Financial implications of adding staff to teach the course</li></ul>
<ul style="list-style-type: none"><li>● Bargaining with AEA-A to staff course</li></ul>	<ul style="list-style-type: none"><li>● Approaches to providing intervention in multiple areas - both exploratory and supportive</li></ul>
Lots of other things we haven't thought of yet...	

# Work that Must Happen



**Arlington Public Schools**  
Education That Empowers

WHAT	WHO	WHEN
Develop a deep understanding of grade-level standards – how they spiral, how they build vertically, and the cognitive demand required to meet them – for all teachers.	Teachers Director of Math Deputy Superintendent	Now → Ongoing
Develop and Communicate Plan for Placement in Final Year of Math 6 Bypass	Director of Math Deputy Superintendent	Now → March
Data Analysis: <ul style="list-style-type: none"><li>● Examine cohort data and outcomes for students in various existing pathways across APS</li><li>● Gather data/information about middle school tracking/leveling in neighboring/other districts</li></ul>	Director of Math District Leaders Building leaders School Committee	Spring 2025
Partner with families, students, and faculty to understand the research and data on math instruction, and to gather feedback on our options and determine next steps.	Interested Families Interested Staff	Summer-Fall 2025
Assess options above to determine the best: <ul style="list-style-type: none"><li>● Schedule</li><li>● Intervention approach</li><li>● Pathway options, and</li><li>● Required staffing</li></ul> ...to support an equitable approach to math instruction aligned with our values and commitments	Teachers Building leaders Directors District Leaders	2025-26 School Year
Decide on pathway and implementation plan for 2026-27	Superintendent Deputy Superintendent	January 2026



## **Town of Arlington, Massachusetts**

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**Plan for reviewing AHS Program of Studies**



## **Town of Arlington, Massachusetts**

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### **Approval of Minutes**

#### **Summary:**

- DRAFT Meeting Minutes - June 14, 2024
- DRAFT Meeting Minutes - November 4, 2024

#### **ATTACHMENTS:**

	Type	File Name	Description
📎	Minutes	6.14.24_-_Google_Docs_(1).pdf	Meeting Minutes - 6-14-2024
📎	Minutes	11.4.24_-_Google_Docs.pdf	Meeting Minutes 11-4-2024



Arlington School Committee  
Curriculum, Instruction, Assessment & Accountability Subcommittee  
Meeting Minutes  
Friday, June 14, 2024 @ 5:30 p.m.  
**DRAFT**

Attendance

Subcommittee Members: Jane Morgan (Chair), Liz Exton, Len Kardon

School Committee Members: Kirsi Allison-Ampe, Jeff Thielman, Paul Schlichtman

District Leadership: Liz Homan (Superintendent), Rob Spiegel, Matthew Janger,  
Weslie Etienne Pierre

Community members: Jay Barry

The meeting was called to order at 5:40 p.m.

**AHS Program of Studies**

- Dr. Janger reviewed the process for developing the program of studies. He indicated that there are a lot of people involved in that conversation. He indicated that in the future the district would provide the School Committee with a comparison document so that changes big and small can be reviewed. Dr. Janger indicated that the change document that was shared with us indicates changes from 24-25 back to 23-24. Dr. Janger indicated that the conversation about adding AP African American Studies to the options for the second year of US History happened between himself, Mr. McCarthy and the History Department Head. Dr. Janger indicated that conversations happened with AHS history teachers at the time when next year courses were introduced to students.
- Jeff Thielman requested an overview of why the change was made and how it could be justified. Dr. Janger indicated that the course could be justified as covering the US History requirement because 50% of content was post-Reconstruction US History and it is a college level class. It does not cover some elements of US History that are covered in AP US History. It also increases the offerings and opportunities for students to cover that part of US History. Jane Morgan indicated that the increase in opportunities, while certainly important, is not necessarily part of the academic conversation about what meets the requirements. Kirsi Allison-Ampe indicated that she would like to see a review of the offerings and requirements for history at AHS and what students need to graduate and what level of specificity we want to provide beyond the basic state requirements. Liz Exton thinks it is important to ensure that, beyond the specific subject areas, the department is considering what we want students to learn and be able to do.
- Jeff Thielman said that he thinks that there are missing components from US History that are not represented in the AP African American Studies course (ex. Immigration, US as a world power). He has concerns about the process that came to this point and that those concerns have been acknowledged.

- Liz Homan reviewed the changes in process moving forward that are reflected in the slides and which include: a December CIAA meeting to review the program of studies, a robust document with changes reflected and a track changes document. Paul Schlichtman shared that the graduation requirements are a School Committee decision and that ultimately the decision rests with the committee. Liz Exton is concerned that the conversation would be framed as having two versions of US History where one is preferred over another.

### **Meeting Minutes**

- Minutes from meetings on 1.10.24, 3.18.24, 5.23.24 were approved 2-0 (Len Kardon abstaining).

The meeting was adjourned at 7:05 p.m.

Arlington School Committee  
Curriculum, Instruction, Assessment & Accountability Subcommittee  
Meeting Minutes  
Monday, November 4, 2024 @ 3:30 p.m.  
**DRAFT**

Attendance

Subcommittee Members: Jane Morgan (Chair), Len Kardon

School Committee Members: Laura Gitelson, Jeff Thielman

District Leadership: Liz Homan, Mona Ford-Walker, Rochelle Rubino, Matthew Janger,  
Matthew Coleman, Michael Kozuch, Juli Keyes

Community: Chery Miller

The meeting was called to order at 3:30 p.m.

**Priority One Goals review**

- Dr. Homan reviewed the 1.1, 1.2 and 1.3 priorities
- Ms. Miller asked about surveying for students with out of district placements or students with school avoidance. Dr. Homan indicated that they will be working on this as well as additional qualitative data. In addition she had questions about chronic absenteeism and communication with families.

**History graduation requirements**

- Mr. Kozuch reviewed the plans for history graduation requirements. He indicated that work had been done with staff over the last few months to review the process by which graduation requirements had been changed and improvements to any future processes.
- Mr. Kozuch reviewed the time periods where the AP US History and AP African American Studies classes overlap.

**Secondary Level Enrollments**

- The subcommittee reviewed secondary level classroom enrollments.
- At AHS, classes are largely well-distributed with the exception of Algebra 2 H. Dr. Janger indicated that the high school is scheduled very very tightly and with increased student populations they would need further staffing to ensure that they can maintain even class sizes.
- At Gibbs there are discrepancies in class sizes and in distribution of students with IEPs. Dr. Homan indicated that a lot had been done to try and balance class sizes at the Gibbs.
- We reviewed class sizes at Ottoson briefly. There are also issues with student distribution there. Largely these are a result of special educator staffing as well as challenges with leveled math classes.

The meeting was adjourned at 5:05 p.m.



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## Town of Arlington, Massachusetts

**Old Business**



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## Town of Arlington, Massachusetts

**New Business**



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## **Town of Arlington, Massachusetts**

**Adjournment**



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**Town of Arlington, Massachusetts**

**Submitted by Jane Morgan**